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HORIZONTALLY-STRUCTURED CAD/CAM MODELING
FOR VIRTUAL FIXTURE AND TOOLING PROCESSES MODELING

ABSTRACT OF THE DISCLOSURE

Disclosed herein is a method of horizontally structured CAD/CAM modeling and manufacturing process for fixtures and tooling comprising: selecting a contact area geometry; generating a tooling model corresponding to the contact area geometry; virtual machining the tooling model

5   to generate the fixtures and tooling; and generating machining instructions to create the fixtures and tooling; where the tooling model exhibits an associative relationship with the contact area geometry. Also disclosed herein is a horizontally structured CAD/CAM model for fixtures and tooling, comprising: a selected contact area geometry; a tooling model that corresponds to the

10   contact area geometry, generated from the selected contact area geometry; where the tooling model includes virtual machining operations to generate the fixtures and tooling; and the tooling model exhibits an associative relationship with the contact area geometry. Further disclosed is a storage medium encoded with a machine-readable computer program code for horizontally structured

15   CAD/CAM modeling. The storage medium including instructions for causing a computer to implement the method of horizontally structured CAD/CAM modeling and manufacturing for fixtures and tooling. Additionally disclosed is a computer data signal for horizontally structured CAD/CAM modeling. The computer data signal comprising code configured to cause a processor to

20   implement a method of horizontally structured CAD/CAM modeling and manufacturing for fixtures and tooling.